Evaluating the longitudinal impact of networked services in UK public libraries: the Longitude II project.

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Introduction

The enormous increase in IT-based services provided by UK public libraries, supported by major national policies and by significant funding streams, is undoubtedly having an impact on end-users (Brophy, 2003). However, systematic assessment of that impact is by no means straightforward, and a number of studies have been undertaken to try to elucidate significant impact indicators. The aim of the Longitude II project is to design and produce a web-based Toolkit which can be adopted by all UK public library authorities to evaluate the longitudinal impact of their IT-based services to end users.

The Longitude II project, undertaken by CERLIM and funded by Resource: the Council for Museums, Archives and Libraries, runs from November 2002 to July 2004, builds on previous work in this field: on the VITAL project (see: www.cerlim/projects/vital/html), on Longitude I (Yeates, 2001), and on CERLIM's evaluation of that Project (Brophy, 2002a); on recent work for Resource in developing understanding of impact in the context of public libraries (Brophy, 2002b), on the UK Department for Culture, Media and Sport (DCMS) Public Library Standards (DCMS, 2001), on the available analyses of Annual Library Plans (see: www.libplans.ws/) and on other related work. From wider afield, Bertot and McClure's work in the USA has considerable relevance (Bertot et al, 2001).

A toolkit of longitudinal survey methods will be developed and tested, a process which will itself contribute to an understanding of user needs and behaviour, with a particular focus on public libraries and the UK People's Network. The emphasis will be on qualitative approaches, which illuminate quantitative data that is more readily available. The Project will show how such tools can be used to evaluate the impact of IT-based services in public libraries on individuals and groups over time. This will address recommendations made by the DCMS report *A Framework for the Future* (DCMS, 2003), which specifically pinpoints the importance of developing a research and evaluation plan to demonstrate the impact made by public library services in order to develop their vital role in the provision of information and learning.

In the first year of the Longitude II project, a set of candidate impact indicators have been identified and tested. In order to test the indicators over time it will be necessary to undertake two data collection exercises separated by approximately 12 months and then to assess the results. Practical data collection exercises will be conducted by the two partner library authorities, Birmingham and Cheshire. This will provide data from contrasting authorities, so ensuring that the team can assess problems encountered from generic as well as specific viewpoints.

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Based on the experience gained in these operational settings, the web-based Toolkit will define the recommended indicators, specify both the methods for data collection and for analysing results, and will advise on presentation. The Toolkit will be presented as an introductory web page of explanation for newcomers, with a definitive guidance document which can be downloaded from the Web, supported by a ‘Frequently Asked Questions’ (FAQ) page.

Review of existing work

A review of existing work in the field of longitudinal assessment was undertaken at the beginning of the project (Craven, 2002). Although the focus of the Longitude II project is public libraries, a number of studies relating to academic libraries were included, as these demonstrate techniques that are of relevance to both sectors. For example, work undertaken on performance measures and quality attributes could be applied to both public and academic library services.

The review identified much work that has been undertaken in the field of library performance measurement, but noted that it tends to be of a quantitative nature such as population and usage statistics, which only provide part of the picture and are not enough to enable assessment of impact on the users.

Assessment of impact can be achieved most successfully through qualitative data collection methods, which will measure effects rather than use. Although qualitative methods may be regarded as providing anecdotal rather than hard evidence of impact, a strong case can be made for the use of qualitative as well as quantitative data collection methods as long as they are obtained in a proper and rigorous way (see Usherwood, 2002). Measuring impact over a period of time will also enable service providers to track trends, but it is important to take into account potential problems connected to any study conducted over time, such as new and changing developments in IT and in the broader environment.

Evaluating impact

‘Libraries which change lives have real impact. These are the most valuable measures of all – but they are also the most difficult’ (Brophy, 2002b).

Brophy (Brophy, 2002b) outlines impact in the context of library services as relating to ‘any effect of a service on an individual or group’ and that it may be

- Positive or negative
- What was intended or something entirely different
- May result in changed attitudes, behaviours or products
- May be short or long term
- May be critical or trivial.

Techniques for the assessment of impact tend to be of a more qualitative nature than measures of processes or outputs. They can undoubtedly provide interesting insights into user views and behaviours (see for example: Brophy, 2003) but to avoid criticisms that such qualitative assessments are merely anecdotal, it is important from the outset to carefully consider what impact evaluation is trying to achieve. In their information paper for the NOF Digitise projects, Brophy and Woodhouse (2003) consider various scenarios for what impact evaluation may be trying to achieve:

- to influence policy makers
- to understand better where impacts are being made
- to check whether past decisions are having the anticipated results
- to develop understanding and insights
- to provide comparative data with which to monitor the effects of change

Impact evaluation may be fitted into the broader picture of performance assessment by considering it within the 'often-used systems model of organisations' (Brophy and Woodhouse, 2003).

Inputs ➔ Processes ➔ Outputs ➔ Outcomes ➔ Impacts

By developing and applying rigorous assessment methodologies, the evidence demonstrating impact will be both comprehensive and robust. The evaluation of impact should then become a natural part of the whole process of performance measurement within an organisation (such as a library) rather than something to be evaluated in isolation.

Longitude II Impact indicators

The Longitude II project has sought to address the issues described above in its development and testing of appropriate methods. Taking existing work into account, it has drawn on the VITAL project approach, designed to collect qualitative data alongside quantitative data which is readily available. The following methods have been selected and tested in the first stage of data collection:

- Library Profiles to provide quantitative data e.g. usage statistics of the sample population. These are useful as surrogate measures but are not in themselves sufficient to provide evidence of impact. Nevertheless they have the advantage that they are often readily available and may not require additional effort to collect.
- Demographic data on participants collected from both the interviews and focus groups.
- Surveys used to measure value and impact by asking respondents to rate attitudes and perceptions using, for example, a Likert scale. Questions for the interviews are based on the VITAL toolkit questionnaire and adapted to include questions relating to specific information provided by The People's Network services and how this has been used in various situations.
- Illustrations of usage to provide a richer picture of the services used and its impact on the users.
- Focus groups to gather evidence of the impact of the library-based IT services to specific groups of library users, such as the English as a Second Language (ESOL) groups, or a readers circle.
- Case studies extracted from both the quantitative and qualitative methods of both data collection exercises.

It has been recognised that data collection is costly, therefore the performance of the chosen methods will be assessed in economic terms. This is particularly important for the methods that will be developed for the Toolkit and recommended to library authorities nationwide, since take-up will be heavily dependent on anticipated costs.

Interviews

During the first data collection phase, interviews were carried out with a pre-selected sample of subjects who had used or were using the computer facilities provided by the public library. Subjects were randomly selected from a sample of nine public libraries in the Cheshire library authority.

Interviews took place over a two-month period. A target figure of no less than 50 subjects was set by the project. It was felt that this figure would provide enough data to illustrate the impact on users of the IT facilities provided by the People's Network. It would also help ensure that enough subjects - taking into account an inevitable drop-out rate – would be available for re-interview in 12 months time and thus illustrate the longitudinal impact.

At an early stage of the selection process a decision was made that it would be better to interview as near to the target number of subjects as possible even if some did not agree to a re-interview. In reality this did not prove to be a problem as the target number of subjects was exceeded - all agreeing to be re-interviewed in 12 months time and all providing contact details for this purpose. However, when the Final Toolkit is developed a mechanism should be put in place for those interviewers who do not have a good response from subjects asked to be re-interviewed. In these cases it may be necessary to look at the process in terms of measuring the general impact on users of the library IT facilities rather than specific individuals.

Quantitative data collected from the interviews included the library profiles and individual demographic data (age range, status, ethnic background etc). Other quantitative data from the interviews included questions about library usage, use of IT facilities, value ratings and user experience ratings.

Qualitative data collected took the form of individual illustrations of use relating to specific headings identified for the project. These were:

- Learning a new skill
- Helping to find work
- Helping to do work
- Contacting people or taking part in discussions
- Local history and community information
- Hobbies and leisure
- General information
- Shopping and finance
- Local authority and government services
- Other

Transcripts of the illustrations were broken down into areas relating to activity, IT facility used, and the potential impact. Coding the different activities and impacts made it possible to quickly extract examples from the data transcribed. For example:

CHE1 (respondent's individual code) Activity: Learning a new skill. Illustration: has been taking ICT courses (ECDL) and values the service provided by ICT in the library. Enabling her to do this and practice her skills. In particular she has been using a word processing package (MS Word) to generate her CV.

Facility: MS Word Impact: Helping in a career search.

Information gathered on library use and access could then be combined with the above data to build up a broader picture of impact for individual case studies, for example by illustrating how often the user visited the library and used the IT facilities, whether the library was her only point of access and how she rated the service.

Focus groups

The focus group sessions were facilitated by Birmingham Libraries and included members of existing library groups who used the computer facilities provided by The People's Network. These included a local history group, a readers' circle, a group of people who meet in the library, a coffee morning group which meets in the library to use the computers, and several English as a Second Language (ESOL) groups who also use the library computers. Focus groups took place in seven branch libraries within the Birmingham Library Authority.

The purpose of the focus group sessions was again to gather evidence of the impact of library-based IT services over time. In the first meeting of each group the interviewer established a baseline of evidence, such as past experiences and established the group's current experience of IT facilities and services, and how such use has affected them.

The focus group sessions were run by two people: one to facilitate the session, the other to manage the recording equipment and take notes. Sharing the workload in this way helped them both to focus on their individual responsibilities and not have to worry about the other.

As well as the library profiles, a small amount of quantitative data was collected from each of the focus group participants. This was essentially demographic data, which would indicate the make-up of each group and of the groups as a whole. Data collected included age, status, ethnic background and disability and was presented as a form to be filled out by participants and handed in at the end of the focus group session.

Discussions were recorded during each session (manually and on mini-disk) and transcribed for analysis using a word processing package. Transcripts were placed under specific headings, which had been identified by the project. These included

- Familiarity with the library computer facilities
- Making use of the computers
- Improving the service
- Impact of the computers in the library
- Use of computers outside the library.

Two ways of displaying the data were considered – summaries of the group discussions or word for word transcriptions of the discussions. It was decided that the most useful method would be a combination of both methods. The summarised data illustrated by appropriate quotes was then coded into areas of activity, facility and impact, for example:

(SE focus group member)
Activity: Keeping in touch with her son who is a doctor working in Afghanistan
Facility: Email
Impact: Enables him to tell her that he is ok and this helps to stop her worrying about him - she doesn't have a computer at home, so the library computers are very important to her for this

Feedback on process

Feedback was provided on both the interview and focus group process and this will be fed into the next stage of the project to help inform the development of the Toolkit.

The interviewer reported that most of the questions asked did not cause confusion or need too much extra explanation. However, there were times when it was necessary to guide the interpretation of questions. For example, when a question related to traditional library use it was sometimes necessary to emphasise: "we are ignoring the computers for the moment, instead focussing on the traditional library stock like books and newspapers". The interviewer could then move on to the next question to look separately at computer usage.

Getting people to open up and expand on their experiences in order to demonstrate impact is a vital part of the study. Whilst some were very willing to talk, others viewed the computers as unremarkable tools and had little to say about them, even with prompting. The interviewer felt that for them, the library was simply an additional place where they could check out their emails or plan a holiday. It was therefore necessary to probe a little further and to get people to really think about what (if anything) they were getting out of the computers in the library, the advantages of having the computers in the library, or getting respondents to think how they would feel if the computers were suddenly taken away. This type of questioning was also used by the VITAL project, which asked subjects to rate the impact on them of the service being withdrawn.

The focus group facilitators gave a mixed response to their experiences. The sessions worked very well when the appropriate number participants took place (suggested numbers were between eight and ten) and when the facilitators were able to keep the focus of the discussion on the subject in hand. Naturally at times the conversation did wander off the point, and participants were often tempted to ask questions relating to their specific IT needs rather than what was actually asked of them. In these cases the skill of the facilitator comes into play in order to gently steer the discussion back on track without appearing to be forcing the conversation.

The main problem experienced by the facilitators was getting enough people to agree to participate. Initially it was hoped that a number of groups who already met in the libraries would be able and willing to take part. Although to some extent this did provide a useful 'captive audience' of users and despite the fact that some of the sessions were well attended, attendance at other sessions was disappointing and at times unusable. This was very frustrating for the facilitators who had taken time and effort to pre-arrange the focus group session only to be faced with poor attendance, which resulted in data that could not be used.

The problems described above will need to be taken into account when developing the Toolkit because, as noted previously, every effort needs to be made to keep down costs incurred for this method of impact evaluation. However, using focus groups has produced some very rich data, with collective experiences as well as individual ones.

Future work

Interviews

Participants re-interviewed next year will retain their reference codes, making it very easy to compare responses and illustrations from the first questionnaire with the second. To enable tracking of impact, the questions asked will be the same as the first set. However, it is highly likely that new questions will be added to reflect the development of the library service (new facilities, changed conditions etc). These will either be additions or replacements ready for the next phase (i.e. year three). We have assumed that such changes will be necessary as public library services are evolving rapidly and will develop their services according to changing needs, requirements and funding constraints.

Although as many participants as possible should be re-interviewed, it may be desirable to include a number of new subjects. This will ensure new users of the library are included in the process of measuring impact over time and will also maintain the desired size of sample for usable data, as inevitably, some of the participants will not be available or contactable when the time comes to re-interview them. In any case it is good practice to rotate part of the sample periodically so that interviewees do not become too used to the process.

Focus groups

The focus group participants were a little different to those taking part in the interviews. From the onset it was recognised that although it would be advantageous to re-run the focus groups with exactly the same participants, in reality this could prove difficult as group members naturally come and go. Therefore, it was decided that whenever possible the same group members should be encouraged to take part, but that it would be quite natural for the groups to include new members who could also be involved in the process. To maintain the longitudinal nature of the study it would, however, be necessary to retain the same mix of groups (i.e. the readers circle, the ESOL group etc).

Conclusions

No major problems have been encountered in putting into practice the planned Longitude II activities for this phase of the work. As was expected, transcribing and analysing results have proved quite time consuming and a particular focus will need to be placed on minimising the required effort. Data analysed and the feedback received from facilitators will inform development of the Toolkit. Taking two different approaches (interviews and focus groups) has proved to be a valuable exercise, and it will be interesting to examine the results of both after the second round of surveys.

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